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FINAL REPORT

Princeton Experimental Package Orbiting Astronomical Observatory - Copernicus

NAGW-477

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EXPERIMENTAL PACKAGE ORBITING
ASTRONOMICAL OBSERVATORY:
COPERNICUS Final Report (Princeton
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1) The publication of the ultraviolet spectral atlas for Vega (Alpha Lyrae) has been delayed by an extensive reworking stimulated by the comments of a referee. The paper has been finally published in *The Astrophysical Journal Supplement Series*, Volume 71, pp 1011-1055 in December 1989. This atlas covers the wavelength range 2000 to 3188 Angstroms at a spectral resolution of 0.1 Angstroms. The center wavelengths of 2310 absorption features have been measured. Of these, 692 have been discarded as possible noise artifacts. Of the remaining features, all but 21% have a suggested identification, with many having multiple components.

2) Considerable effort was made to apply the augmented and improved laboratory wavelength database to the identification of the spectral absorption features in the 2000-3170 Angstrom range of the Sirius spectrum (*The Copernicus Ultraviolet Spectral Atlas of Sirius*; Rogerson, 1987, *The Astrophysical Journal Supplement Series*, Vol. 63). A detailed comparison was drawn between the new identification list and the published one. While a number of new identifications could be made, most of them were not of high reliability. Because of the limited usefulness of these results, it has been decided that their publication is not warranted.